



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,950	12/13/2006	Masahiro Nakazaki	0020-5466PUS1	9326
2292 7590 01/11/2008 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER KHAN, AMINA S	
			ART UNIT 1796	PAPER NUMBER
			NOTIFICATION DATE 01/11/2008	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

## Office Action Summary

Application No.

10/568,950

Applicant(s)

NAKAZAKI ET AL.

Examiner

Amina Khan

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7 and 9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7 and 9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10/17/2007.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 17, 2007 has been entered.
2. Claims 1-4,7 and 9 are pending. Claim 1 has been amended. Claims 5,6 and 8 have been cancelled.
3. ~~The rejection of claims 1, 4 and 8 under 35 U.S.C. 102(b) as being anticipated by Dickmanns et al. (US 3,993,437) is withdrawn.~~
4. The rejection of claims 1,4 and 8 under 35 U.S.C. 102(b) as being anticipated by Russ et al. (US 5,810,890) is withdrawn.
5. The rejection of claims 1,3,4,8 and 9 under 35 U.S.C. 102(b) as being anticipated by JP 68024207 B is withdrawn.

Art Unit: 1796

6. The rejection of claims 1-8 under 35 U.S.C. 103(a) as being unpatentable over Miyamatsu et al. (US 5,221,289) is withdrawn.

7. The rejection of claims 1-4,8 and 9 under 35 U.S.C. 103(a) as being unpatentable over Moeller et al. (WO 98/47472) is withdrawn.

8. The rejection of claims 1-4,8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moeller et al. (WO 01/34106) is withdrawn.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-4,7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pai (US 5,516,338).

Pai teaches treating wool (column 3, lines 25-30) with 0.1-5% tannins such as tannic acid (column 3, lines 55-60; column 4, lines 35-45) and a water soluble salt such as ferric titanate at a pH of 2.5-3.5 (column 2, lines 40-60) either simultaneously or in sequence (column 4, lines 45-55) at temperatures of boiling (column 5, lines 10-15). Pai teaches the addition of other mordants such as iron salts (column 8, lines 20-30).

Substituting ferric titanate for titanium potassium oxalate and tannic acid for Myrobalan oxalate into example 1 would meet the claimed limitations. These compounds are taught as functional equivalents (column 2, lines 44-55).

Pai does not teach all the claimed embodiments in a single example.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods of Pai by substituting ferric titanate for titanium potassium oxalate and tannic acid for Myrobalan oxalate into example 1 since Pai teaches these as art recognized equivalents for the dyeing of nylon. The substitution of art recognized equivalents requires only routine skill in the art. One of ordinary skill would have been motivated to select the claimed components from the teaching of Pai absent unexpected results.

11. Claims 1-4,7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hall (US 5,861,045) in view of Khristov (BG 50051 A3).

Hall teaches treating wool with a bath of tannic acid at 150°F for dyeing followed by treating with ferric chloride at a pH of 7.0 (columns 3 and 4, examples 16,7 and 1). Hall teaches the addition of other mordants such as iron salts (column 8, lines 20-30). Hall further teaches over dyeing is optional (column 2, lines 20-30).

Hall does not teach simultaneously treating with tannic acid and iron salt, or heating the separate iron salt solution to 40°C or more.

Khristov teaches applying to textiles iron salt, tannic substances and gallic acid at boiling temperature from 1-30 minutes until the desired shade of substance is reached (abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods of Hall by incorporating the simultaneous treatment of tannic acid and iron salts at boiling temperature as taught by Khristov because Khristov teaches this method as efficient in producing the desired coloring of textiles. It would also be obvious to modify the methods of Hall by heating the separate treatment of iron salt to boiling as taught by Khristov. One of ordinary skill would have been motivated to combine the teachings of the references absent unexpected results.

Regarding the claimed limitation of "without the use of a dye", the claims do not require a coloring method which does not use dye by rather the tannic acid and iron salt treatment steps which do not use dye.

It would be expected from the teachings of Khristov that the tannic acid and iron salt treatment steps would provide the wool with color and no overdyeing would be necessary and is completely optional.

### ***Response to Arguments***

12. Applicant's arguments filed regarding Pai have been fully considered but they are not persuasive. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods of Pai by substituting ferric titanate for titanium potassium oxalate and tannic acid for Myrobalan oxalate into example 1 since

Art Unit: 1796

Pai teaches these as art recognized equivalents for the dyeing of nylon. The substitution of art recognized equivalents requires only routine skill in the art.

### ***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amina Khan whose telephone number is (571) 272-5573. The examiner can normally be reached on Monday through Friday, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*AK*

AK  
1-6-08

*Lorna M. Douyon*  
LORNA M. DOUYON  
PRIMARY EXAMINER